

What is claimed:

1. A drill bit comprising
an elongate bit body having a cutting end and a mounting end,
said mounting end being tubular with an inner opening,
said cutting end having a transverse slot for retaining a cutting blade,
said cutting end having an aperture communicating with said inner
opening,
said cutting end having a table adjacent said slot for reducing a
penetration rate of said drill bit, and
a hardened blade retained in said transverse slot.
2. A drill bit in accordance with claim 1 and further comprising a second
table adjacent said slot and opposite said first table.
3. A drill bit in accordance with claim 1 wherein said table is planar.
4. A drill bit in accordance with claim 3 wherein said planar table is
perpendicular to an axis of rotation of said drill bit.

5. A drill bit comprising

- an elongate bit body having a forward cutting end and a mounting end,
- said cutting end having a transverse slot therein,
- a blade having a longitudinal axis, a cutting end and a mounting portion,
- said mounting portion retained in said slot in said bit body,
- said blade further having a longitudinal slot extending axially rearward from said cutting end,
- said slot defined by opposing side walls and a central bridge extending between said side walls,
- said bridge having a cutting edge extending between said walls and having first and second sides that slope away from said edges.

6. A drill bit in accordance with claim 5 wherein said cutting edge extends between said inner walls is linear.

7. A drill bit in accordance with claim 5 wherein said first and second sides that slope away from said edge are curved and said cutting edge extending between said inner walls is curved wherein said bridge has a saddle shape.

8. A drill bit comprising

- a bit body having a forward cutting end and a rearward mounting end,
- said cutting end having a transverse slot therein,
- a blade having a longitudinal axis, a cutting end, a mounting portion,

and having first and second opposing cutting sides,

- said first and second cutting sides positioned symmetrically about said longitudinal axis,
- each cutting side having a leading face and a trailing face,
- said leading face and said trailing face of each of said cutting sides having outer end edges and forward edges,
- a first outer end surface extending between adjacent outer end edges of said leading and trailing faces of said first side,
- a first cutting surface extending between said forward edges of said leading and trailing faces of said first side,
- a stress relief surface having edges along said leading face of said first cutting side, said first outer end surface and said cutting surface, and
- said blade received in said slot in said bit body.

9. A drill bit comprising

- a bit body having a forward cutting end and a rearward mounting end,
- said cutting end having a transverse slot therein,
- a blade having a longitudinal axis, a cutting end, a mounting portion, a rearwardly extending axial slot, and having first and second opposing cutting sides,
- said first and second cutting sides positioned symmetrically about said longitudinal axis,
- said first and second cutting sides each having an inner wall surface wherein said first and second inner wall surfaces define walls of said axial slot,
- each cutting side having a leading face and a trailing face,
- said first cutting side having a forward cutting surface,
- said leading face for said first cutting side having a forward cutting edge at an intersection with said forward cutting surface and an inner edge at an intersection with said first inner wall,
- a stress relief surface having an edge along said leading face for said first cutting side, said first forward cutting surface and said first inner wall, and
- said blade received in said slot in said bit body.

10. A drill bit in accordance with claim 9 wherein

said leading face and said trailing face of each of said cutting sides have outer edges and said blade further comprises

an outer end surface extending between adjacent outer edges of said leading and trailing faces of said first side, and

a second stress relief surface having an edge along said leading face for said first cutting side, said forward surface and said outer end surface.

11. A drill bit in accordance with claim 10 wherein

said first inner wall forms a cutting edge with said intersection with said forward face from said first cutting side.

12. A drill bit in accordance with claim 11 wherein said cutting edge at said intersection of said forward face for said first cutting side and said first inner wall forms an acute angle.

13. A drill bit comprising

a bit body having a forward cutting end and a rearward mounting end,
said cutting end having a transverse slot therein,

a blade having a longitudinal axis, a cutting end, a mounting portion, a
rearwardly extending axial slot, and having first and second opposing cutting
sides,

said first and second cutting sides positioned symmetrically about said
longitudinal axis,

said first and second cutting sides each having an inner wall surface
wherein said first and second inner wall surfaces define walls of said axial slot,

each cutting side having a leading face and a trailing face,

said first cutting side having a forward cutting surface,

said leading face for said first cutting side having a forward cutting
edge at an intersection with said forward cutting surface and an inner edge at an
intersection with said first inner wall,

said first inner wall forming a cutting edge at said intersection with said
leading face of said first cutting end, and

said blade received in said slot in said bit body.

14. A drill bit in accordance with claim 13 wherein said cutting edge at
said intersection of said first inner wall and said leading face of said first cutting
end forms an acute angle.